

**CLAIMS**

1. Method of providing index server support to a file sharing application, comprising:
  - 5 • handling requests for investigating a hierarchical structure of index servers in a network, including
    - intercepting an investigation request that is directed to a remote index server, and
    - notifying an originator of the investigation request of the intercepting index server identity.
- 10 2. Method according to claim 1, comprising  
notifying the remote index server of the intercepting index server identity.
3. Method according to claim 1 or claim 2, comprising
  - 15 • accepting an investigation request as recipient,
  - notifying an originator of the investigation request in response to the investigation request.
4. Method according to any one of the preceding claims, comprising
  - receiving a note from a remote intercepting index server disclosing its identity,
  - 20 • registering the remote intercepting index server as child index server.
5. Method according to any one of the preceding claims, comprising
  - sending an investigation request to a known index server,
  - receiving a notification in response to the request.
- 25 6. Method according to claim 5, comprising  
registering the known index server as a parent index server when the known index server is the originator of the received note.

7. Method according to claim 5 or claim 6, comprising

registering the originator of the received note as parent index server when the originator of the received note is not the known index server.

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8. Method according to claim 5 or claim 6, comprising

- sending an investigation request to the originator of the response when the originator of the received note is not the known index server but another index server, and
- receiving a further notification in response to this further investigation message.

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9. Method according to claim 8, comprising

registering the originator of the further notification as parent index server.

10. Method according to any one of the preceding claims, comprising

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- handling requests for querying a file as part of a file sharing application, including
    - searching an index of the index server for a registered client that can provide the queried file.

11. Method according to claim 10, comprising

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- forwarding the query to a registered child index server when the queried file is not allocated to a client registered in the index.

12. Method according to claim 10 or claim 11, comprising

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- forwarding the query to a registered parent index server when the queried file is not allocated to a client registered in the index.

13. Index server, comprising

a control logic that is configured for performing a method as claimed in any one of the preceding claims.

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14. Computer program element comprising computer program code which, when loaded in a processor unit of an index server, configures the processor unit for performing a method as claimed in any one of claims 1 to 12.

5 15. Method for retrieving an index server,

- sending a request for investigating a hierarchical structure of index servers in a network to a known index server,
- receiving a notification in response to the investigation request, and
- registering the originator of the received note as destination for future file query requests.

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16. Client computer for performing a file sharing application, comprising a control logic that is configured for performing a method as claimed in claim 15.

17. Computer program element comprising computer program code which, when loaded in a  
15 processor unit of a client computer, configures the processor unit for performing a method as claimed in claim 15.

18. Method for retrieving an index server,  
wherein

- 20 • a request for investigating a hierarchical structure of index servers in a network is sent to a known index server,
- the investigation request is intercepted by the first index server that becomes aware of the investigation request,
- an originator of the investigation request is notified of the intercepting index server identity,
- 25 • the intercepted request is dropped by the intercepting index server without forwarding it to its destination, and
- the originator of the investigation request is registering the intercepting index sever as addressee for file querying requests.